

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>Jg-3147-PCT</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB2004/002712</b>	International filing date (day/month/year) <b>23/06/2004</b>	(Earliest) Priority Date (day/month/year) <b>25/06/2003</b>
Applicant <b>SOUTHAMPTON PHOTONICS LIMITED</b>		

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This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/002712

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01S3/067

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 864 645 A (ZELLMER ET AL) 26 January 1999 (1999-01-26) cited in the application column 3, line 30 - line 35 column 4, line 4 - line 6; figures 2,5	1-5
X	US 6 157 763 A (GRUBB ET AL) 5 December 2000 (2000-12-05) column 6, line 48 - line 65; figures 4,7	1-5
X	US 2002/181512 A1 (WANG ZHIJIANG ET AL) 5 December 2002 (2002-12-05) paragraph '0045!; figure 1	1
A	paragraph '0052!; figure 9	2-5
X	EP 1 043 816 A2 (LUCENT TECHNOLOGIES INC) 11 October 2000 (2000-10-11) column 3, line 30 - line 35; figure 2	1-5
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

25 January 2005

Date of mailing of the international search report

18/02/2005

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/002712

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 533 163 A (MUENDEL ET AL) 2 July 1996 (1996-07-02) figure 4c	1
A	US 2002/172486 A1 (FERMANN MARTIN) 21 November 2002 (2002-11-21) figures 4b,5b	1

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/002712

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5864645	A	26-01-1999	DE 19535526 C1	03-04-1997
			CA 2204865 A1	03-04-1997
			CN 1166239 A ,B	26-11-1997
			DE 59602381 D1	12-08-1999
			DK 793867 T3	10-04-2000
			WO 9712429 A1	03-04-1997
			EP 0793867 A1	10-09-1997
			JP 10510104 T	29-09-1998
			RU 2138892 C1	27-09-1999
US 6157763	A	05-12-2000	US 6345141 B1	05-02-2002
US 2002181512	A1	05-12-2002	WO 02097935 A1	05-12-2002
			DE 10296886 T5	29-07-2004
EP 1043816	A2	11-10-2000	US 6483973 B1	19-11-2002
US 5533163	A	02-07-1996	CA 2196188 A1	15-02-1996
			CN 1154764 A ,B	16-07-1997
			DE 69503249 D1	06-08-1998
			DE 69503249 T2	29-10-1998
			EP 0771481 A1	07-05-1997
			JP 10503885 T	07-04-1998
			KR 241581 B1	01-02-2000
			RU 2153214 C1	20-07-2000
			WO 9604700 A1	15-02-1996
US 2002172486	A1	21-11-2002	DE 10211352 A1	26-09-2002
			JP 2002323636 A	08-11-2002

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